

WHAT IS CLAIMED IS:

1 1. A method for storing streaming media data in a cache memory
2 comprises:
3 receiving a data file from a streaming media server;
4 determining a plurality of payload data packets from the data file to be
5 streamed to a client system;
6 determining header data from the data file;
7 storing a portion of the header data in a session data object in the cache
8 memory; and
9 storing the plurality of payload data packets in a plurality of data objects in the
10 cache memory, wherein each data object of the first plurality of data objects is directly
11 addressable in the cache memory via an associated object handle, and wherein each data
12 object of the first plurality of data objects stores a portion of the set payload data of payload
13 data packets.

14 2. The method of claim 1
15 wherein a data object of the first plurality of data objects comprises an object
16 meta data portion and a plurality of data chunks; and
17 wherein storing the plurality of payload data packets in the first plurality of
18 data objects in the cache memory further comprises:
19 storing a number representing a total number of data chunks in the
20 plurality of data chunks, in the object meta data portion; and
21 storing a portion of payload data, subset of payload data packets in the
22 plurality of data chunks.

1 3. The method of claim 2
2 wherein a data chunk of the plurality of data chunks comprises a chunk meta
3 data portion, packet meta data portion, and a plurality of packet payloads,
4 wherein storing a subset portion of payload data from the portion of payload
5 data, further comprises:
6 storing a number representing the total number of packet payloads in
7 the plurality of packet payloads, in the chunk meta data portion;
8 storing a presentation time for each packet payload, in the packet meta
9 data portion, and

10 storing a subgroup of payload data from the subset portion of payload
11 data, in the plurality of packet payloads.

1 4. The method of claim 3 wherein the stream of media data packets is
2 configured to be played on a media player selected from the group comprising: RealNetworks
3 Real Player -compatible, Microsoft Media Player -compatible, Apple QuickTime player -
4 compatible.

1 5. The method of claim 3 further comprising streaming the stream of
2 media data packets on a port selected from the group: 554, 2001, 1755, 80.

1 6. The method of claim 2 wherein the subset of payload data packets
2 stored in the data object is associated with a pre-determined amount of presentation time.

1 7. The method of claim 1 wherein determining a plurality of payload data
2 packets from the data file comprises pre-computing the plurality of payload data packets from
3 the data file.

1 8. A cache memory including a processor configured to store streaming
2 media data comprises:
3 code that directs the processor to receive a data file from a streaming media
4 server, the data file including encoded media data;
5 code that directs the processor to determine header data from the data file;
6 code that directs the processor to pre-compute a plurality of payload packets
7 from the encoded media data,
8 a session data file storing a portion of the header data, wherein the header data
9 are selected from the group: encoding scheme, duration; and
10 a plurality of data objects storing the plurality of payload packets, wherein
11 each data object of first plurality of data objects is directly addressable in the cache memory
12 via an associated object handle, and wherein each data object of the plurality of data objects
13 stores a set of payload packets from the plurality of payload packets.

1 9. The cache memory of claim 8
2 wherein a data object from the plurality of data objects comprises an object
3 meta data portion and a plurality of data chunks,
4 wherein the object meta data portion stores a number representing a total

5 number of data chunks in the data object, and
6 wherein each data chunk of the plurality data chunks stores a subset of the set
7 of payload packets.

1 10. The cache memory of claim 8 further comprising:
2 code that directs the processor to retrieve the subset of the set of payload
3 packets from the plurality of data chunks;
4 code that directs the processor to retrieve the header data from the session data
5 object in the cache memory;
6 code that directs the processor to combine the header data and the subset of the
7 set of payload packets to form a stream of media data packets; and
8 code that directs the processor to serve the stream of media data packets to a
9 client system.

1 11. The cache memory of claim 8 wherein each data object is associated
2 with a presentation time.

1 12. The cache memory of claim 10 wherein the stream of media data
2 packets is in a format selected from the group: Microsoft Media Streaming - compatible, Real
3 Time Streaming Protocol –compatible, RealNetworks – compatible, QuickTime-compatible.

1 13. The cache memory of claim 8 wherein code that directs the processor
2 to serve the stream of media data packets comprises code that directs the processor to output
3 the media data packets on a port selected from the group: 554, 2001, 1755, 80.

1 14. The cache memory of claim 8 wherein the object handle comprises a
2 filename.

1 15. A computer program product for a computer system including a
2 processor includes:
3 code that directs the processor to receive a data file from a streaming media
4 server, the data file including encoded media data;
5 code that directs the processor to determine header data from the data file;
6 code that directs the processor to pre-compute a plurality of payload packets
7 from the encoded media data;
8 code that directs the processor to store the header data in a session data object

9 in the cache memory; and

10 code that directs the processor to store the plurality of payload packets in a
11 plurality of data objects in the cache memory, wherein each data object of the plurality of
12 data objects is directly addressable by the processor in the cache memory via an associated
13 object handle, and wherein each data object of the plurality of data objects stores a set of
14 payload packets,

15 wherein the codes reside on a tangible media.

1 16. The computer program product of claim 15

2 wherein a data object of the plurality of data objects comprises an object meta
3 data portion and a plurality of data chunks;

4 wherein code that directs the processor to store the plurality of payload
5 packets in the plurality of data objects in the cache memory further comprises:

6 code that directs the processor to store in the object meta data portion,
7 a number representing a total number of data chunks in the data object; and

8 code that directs the processor to store in the plurality of data chunks, a
9 subset of payload packets from the set of payload packets.

1 17. The computer program product of claim 16 wherein the tangible media
2 also includes:

3 code that directs the processor to retrieve the subset of payload packets from
4 the plurality of data chunks;

5 code that directs the processor to retrieve the header data from the session data
6 object in the cache memory;

7 code that directs the processor to combine the header data and the subset of
8 payload data packets to form a stream of media data packets; and

9 code that directs the processor to serve the stream of media data packets to the
10 client system.

1 18. The computer program product of claim 17 wherein the plurality of
2 data chunks each have an associated presentation time of less than or equal to approximately
3 a time selected from the group: 10 seconds, 30 seconds, 1 minute.

1 19. The computer program product of claim 17 wherein the plurality of
2 data chunks each have a size less than or equal to approximately a size selected from the

3 group: 64 Kbytes, 128 Kbytes, 512 Kbytes, 1 Mbyte.

1 20. The computer program product of claim 17 wherein a format for the
2 stream of media data packets is selected from the group comprising: Microsoft Media
3 Streaming - compatible, Real Time Streaming Protocol –compatible, RealNetworks –
4 compatible, QuickTime-compatible.